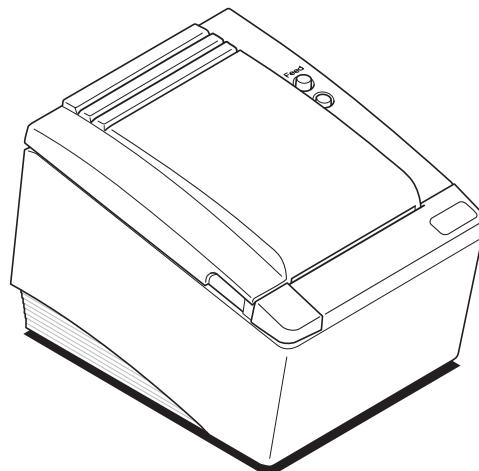




OKIPOS 80PlusIII



User's Guide





Every effort has been made to ensure that the information in this document is complete, accurate, and up-to-date. Oki assumes no responsibility for the results of errors beyond its control. Oki also cannot guarantee that changes in software and equipment made by other manufacturers and referred to in this guide will not affect the applicability of the information in it. Mention of software products manufactured by other companies does not necessarily constitute endorsement by Oki.

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UL, CSA, VDE, CE Safety Statement

OKIPOS printers are UL & CSA Listed, VDE Certified, and carry the CE Mark.

This product complies with the requirements of the Council Directives 89/336/EEC and 73/23/EEC on the approximation of the laws of the member states relating to electromagnetic compatibility and low voltage.



This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.





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English



Safety Instructions

Your Oki printer has been carefully designed to give you years of safe, reliable performance. As with all electrical equipment, however, there are a few basic precautions you should take to avoid hurting yourself or damaging the printer:

- Read the setup instructions in this handbook carefully. Be sure to save it for future reference.
- Read and follow all warning and instruction labels on the printer itself.
- Unplug the printer before you clean it. Use only a damp cloth; do not use liquid or aerosol cleaners.
- Do not use your printer near water, or spill liquid of any kind into it.
- Be certain that your power source matches the rating listed on the back of the printer. If you are not sure, check with your dealer or with your local power company, or use the appropriate Oki power supply unit.
- The power outlet into which you plug your printer must remain accessible at all times.
- If you are using an extension cable or power strip with the printer, make sure that the total of the amperes required by all the equipment on the extension is less than the extension's rating. The total ratings of all equipment plugged into the outlet should not exceed 15 amperes.

- Aside from the routine maintenance described in this handbook, do not try to service the printer yourself; opening the cover may expose you to shocks or other hazards.

If anything happens that indicates that your printer is not working properly or has been damaged, unplug it immediately and contact your dealer.

These are some of the things to look for:

- Liquid has been spilled into the printer, or it has been exposed to water.
- The printer has been dropped, or the cabinet is damaged.
- The printer does not function normally when you are following the operating instructions.



About the OKIPOS 80 Plus III Printer

What Is in This Book?

Who Is It For?

This book is an operator's guide intended for new and experienced operators. If you are going to set up, use, or maintain the OKIPOS 80 Plus III Printer with any point-of-sale system, then this book is for you.

What Does It Cover?

Of course, this book only covers the OKIPOS 80 Plus III Printer, not the entire point-of-sale system, but it will tell you all you need to know about using the printer properly. You'll find out what supplies you need to order, how to set up and test the printer, and how to do the common tasks listed here:

- Change the paper
- Correct problems
- Clean the printer

This book also provides some general and technical information about the printer, so you'll know what the features are, how reliable it is, and what its printing capabilities are.

English

Where Can You Find More Information?

A *Programming Guide* is available if you need to know how to program a point-of-sale terminal or a PC to work with the printer. It describes all the commands the printer recognises to perform its functions.

A *Maintenance Manual* is also available and is intended for trained technicians who service the printer.

Contact your dealer to order these guides.

Service Information

If you need a printer serviced, whether it's under warranty or not, call your dealer. You may have several options for service depending on the contract you have. Your dealer may service the printer directly or have a service agreement with a local service contractor.

You will need to re-pack the printer and ship it to a service centre. Be sure to keep all the packing materials and the box. Please refer to "Unpacking the Printer".



Description of the OKIPOS 80 Plus III Printer

The OKIPOS 80 Plus III Printer is a stand-alone, 40-column, thermal printer. The OKIPOS 80 Plus III Printer performs high speed receipt printing in a point-of-sale environment and is available in the following models:

- OKIPOS 80 Plus III Serial
- OKIPOS 80 Plus III Serial with power supply unit
- OKIPOS 80 Plus III Parallel
- OKIPOS 80 Plus III Parallel with power supply unit

OKIPOS 80 Plus III Print Speed

TEXT - 6LPI 32 LPS

TEXT - 8LPI 42LPS

Standard Features

The following features and items are standard on all OKIPOS 80 Plus III printers:

- 44-column printing at 15.6 characters per inch (6.14 characters per cm)

- 4.0 inch (approx. 10cm) diameter thermal paper roll, 420 feet (approx. 128m) per roll
- Automatic Cutter (partial cut)
- Easy paper load
- RS232C Serial Interface with 8K buffer
- Epson® TMT-88 and Axiohm® 793/794 Emulation
- Paper Out sensor
- Operator controlled self-test
- Dual cash drawer connectors (RJ12) and drivers (24V, 1.5 amp pulse for approximately 150 ms; drawer open/closed status reporting)
- Characters and Graphics
 - Print Speed 135 mm. per second - text
 - Paper slew speed 135 mm. per second
 - Wide print Zone – 72 mm.
 - 8 dots per mm (203dpi) horizontal and vertical
 - All characters scalable up 8 times vertical and horizontal
 - APA bit map graphics
 - Reverse video, and rotated on the same line



Optional Features

The optional features either replace a standard feature or enhance the operation of the printer. All optional features are installed at the factory and must be selected when the printer is ordered.

- IEEE 1284 Bi-Directional Parallel (Optional)
- Custom colors and logo

Reliability

- Mean Time between failure: 93,600 hours @ 12.5% Ratio
- Mean Cycles between Failure: 32,000,000 Print Lines
- Mean time to repair: 15 minutes
- Cutter: 1,000,000 Cut Life

Print Characteristics

The OKIPOS 80 Plus III Printer prints characters in a variety of pitches. All pitches are scaleable up to eight (8) times horizontally or vertically.

For information about programming the printer to print a particular pitch or style, please refer to the *Programmer's Guide*. You can order the *Programmer's Guide* from your Oki dealer.

Pitch (Characters per Inch)	Max. Characters per Line
15.6 CPI	44
20.3 CPI	57





Setting Up the Printer

Follow the instructions in this chapter to quickly set up the OKIPOS 80 Plus III Printer. We recommend that you check it out first before you connect it to your system to make sure everything is working properly. You should have it ready to hook up to your system in just a few minutes.

Here is a list of what is covered in this chapter:

- Unpacking the printer
- Choosing a location for the printer
- Connecting the power cord
- Loading paper
- Testing the printer
- Connecting the communication and cash drawer cables



Unpacking the Printer



Be sure to save the box and packing materials in case you need to send the printer to be serviced.

1. Before removing the printer, examine the outside of the box for signs of damage.

If any damage has occurred to the box, carefully examine the printer and accessories before setting up the printer. Report all evidence of damage or abuse to the dealer and shipper.

2. Open the box and remove all the papers and supplies envelope.
3. Carefully lift the printer (inside the packing material) out of the box and set it on a sturdy, flat surface.
4. Separate the printer from the packing material.

Simply reverse these steps if you need to repack the printer to send in for service (you do not need to repack the supplies).

5. Check the printer for any signs of damage.

If the printer or any parts are damaged, report this to the dealer or shipper immediately.

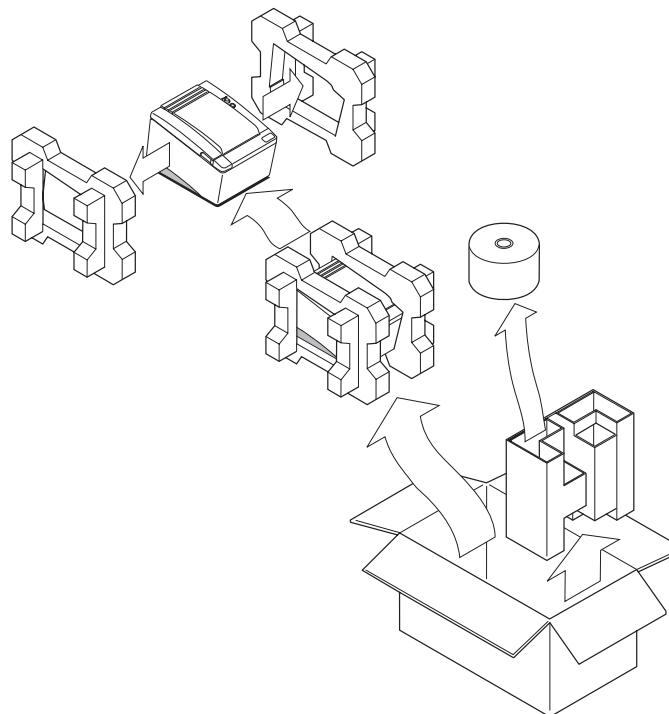




Check That All Items Are Present

The following items are packed in the box and supplies envelope.
If any items are missing, contact your dealer.

- OKIPOS 80 Plus III Operator's Guide
- Printer
- Supplies Envelope
- Paper Roll
- Power Supply Unit (if applicable)





Choosing a Location for the Printer

The OKIPOS 80 Plus III Printer is designed to be placed on point-of-sale terminals, counter tops, or any other flat stable surface that can support the weight of the printer (about 1.8kg). Please refer to the dimensions when selecting the best possible location. Be aware of the environmental conditions of the location where you place the printer. Generally, the environment in any store is suitable for operating the printer.

Dimensions

- Width: 152mm
- Length: 216mm
- Height: 142mm

Weight

- Approximate weight: 1.8kg
- Approximate shipping weight: 4.5kg

Environmental Conditions

The printer will run at its best when stored and operated in an environment that meets the following temperature and humidity conditions:

- Operating temperature: 0° to 40°C
- Storage temperature: -10° to +60°C
- Operating relative humidity: 10% to 90% (non-condensing)
- Storage relative humidity: 5% to 90%





Connecting the Power Cable

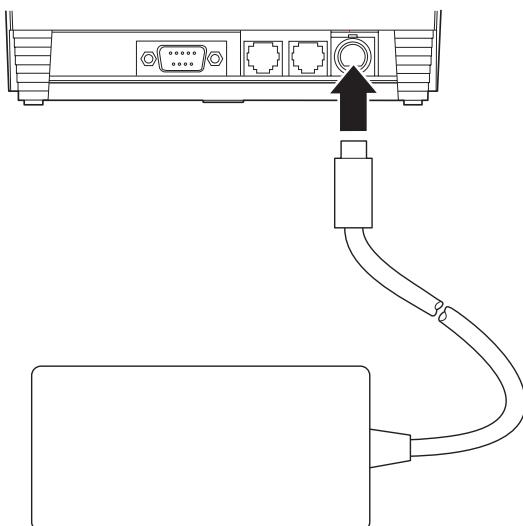


The external power supply and AC power cable are ordered and shipped separately.

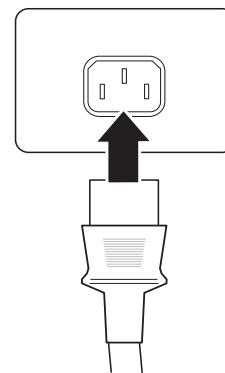


The printer must be earthed through the three-pin power connector. DO NOT use any ground defeating adapter.

1. Connect the external power supply cable to the power supply connector located on the back of the back of the printer.



2. Connect the power cable to the external power supply.



3. Plug the power cable into an earthed three-pin power socket.



The power cable should be connected to a nearby earthed power socket which should remain easily accessible at all times.

The LED turns green indicating the printer is on.



The printer takes about 1.5 seconds to begin operation.



Loading and Removing Paper

This section describes how to load and remove paper. Change the paper when the Status LED flashes. This indicates that the paper is low. The printer will stop. You must change the paper for the printer to resume operating.

Put in the New Paper Roll

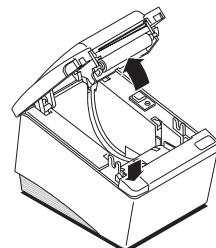
Follow these instructions for loading paper.



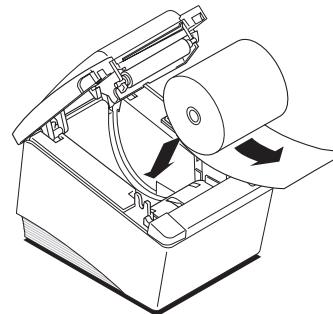
If this is a new installation, a receipt roll is supplied with the printer.

1. Open the paper cover by firmly pressing the cover latch button.

If you are changing the paper, remove the used supply roll.



2. Place the paper roll so the paper unwinds from the bottom (front).



3. Close the cover firmly.



Testing the Printer

You can test the printer to ensure that it is running properly. The sample on the following page shows what a printout of the test may look like. The test pattern varies depending on the printer model and the character set selected when the printer was ordered.

Run the test after loading the paper, but before connecting it to a host system. If the characters do not print properly, check to make sure the paper is installed correctly, and that suitable thermal paper is being used.

If the printer is still not working correctly, contact your dealer.



Test the Printer

1. Open the printer cover.
2. Plug the DC power cable from the external power supply into the printer.
3. Plug the AC power cable into the external power supply.
4. Plug the AC power cable into a grounded three-pin power socket.
5. The status LED will start flashing after approximately 1 1/2 seconds.

6. Close the paper cover.
7. The printer will print some technical information.
8. To print some sample code pages, press the line feed button.

These modes are described in the *OKIPOS 80 Plus III Programmer's Guide*.

To order this book, please contact your dealer. If you have accidentally entered this menu mode, disconnect AC power and then reconnect it again.





Connecting the Cables

Now that you have set up and tested the printer, you are ready to connect it to the point-of-sale system.

Connecting the Communication Cable

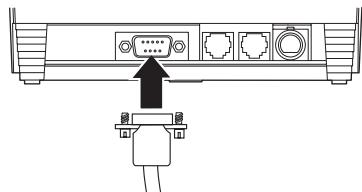
Depending on the interface your system uses, connect either the serial or parallel communication cable to the appropriate connector on the back of the printer.

Cables are provided by your dealer or the system installer.



Connect the Serial Cable

1. Unplug the AC power cable from the earthed three- pin power socket and turn the host system or PC off.
2. Connect the 9-pin serial interface cable to the connector located on the back of the printer.

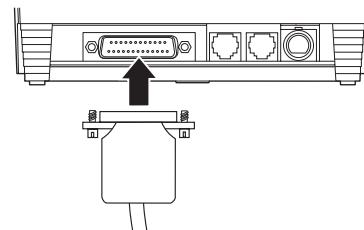


Refer to the Appendix for information on the serial cable requirements.

3. Tighten the two mounting screws on each side of the cable connector.

Connect the Parallel Cable

1. Unplug the AC power cable from the earthed three- pin power socket and turn the host system or PC off.
2. Connect the 25-pin parallel interface cable to the connector located on the back of the printer.



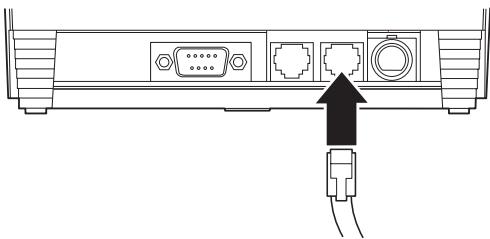
Refer to the Appendix for information on the parallel cable requirements.





Connecting the Cash Drawer Cables

1. Unplug the AC power cable from the earthed three-pin power socket.
2. Connect the cash drawer cable to the connectors located on the back of the printer.



Adapters are available for connecting cash drawers equipped with BNC style connectors (the standard is a modular, telephone style connector). The standard connection emulates an Epson printer. Optional cash drawer connections to emulate Axiohm® must be ordered with the printer.

Contact your dealer for an adapter if required.

Setup Checklist

Did you follow all of the steps to set up the printer? Here they are again for you to check off.

- Unpack the printer.
- Choose a location for the printer.
- Check the environmental conditions and the airflow around the printer.
- Connect the power cord.
- Load the paper.
- Test the printer.
- Connect the communication and cash drawer cables.

English





Operating the Printer

Once the printer has been setup, there is very little that you need to do during daily operation because most functions are controlled by the host system. This chapter describes the following few tasks that you will need to perform, some more often than others:

- Operating the keypad
- Cleaning the printer
- Cleaning the thermal printhead



For instructions on changing the paper, see “Loading and Removing Paper”.

In order of precedence:

Printer not configured	5 quick flashes
thermal head overheat	Rapid, continuous
Cutter error	3 quick flashes
Cover open	Continuous
Paper out	Slow, continuous

Buttons

The printer includes one button that has the following function:

FEED Button

The FEED button advances receipt paper.

Cleaning the Printer

Cleaning the printer occasionally and keeping it well maintained will help it to last longer and run better.

 *Do not use rubbing alcohol or any kind of cleaner on any internal parts of the printer, as some parts may crack or break as a result.*

Operating the Keypad

The keypad contains one button and one status LED for easy operation of the printer.

Status LED

There is a single status LED to display on-line and error conditions. The following table describes the types of error conditions possible and patterns that the LED will flash in those conditions.





Cleaning the Thermal Printhead

Under normal conditions the thermal printhead does not need cleaning.

If the print characters are not printing correctly, wipe the thermal printhead with alcohol and a lint free cloth.

 *Do not get any alcohol on any of the other parts of the printer mechanism or the casing.*

English





Appendix

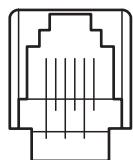
Cash Drawer Pin Assignments

Function	Drawer 1	Drawer 2
Drawer Drive +	Pin 4	Pin 4
Drawer Drive -	Pin 5	Pin 1
Status Signal	Pin 2	Pin 2
Status Ground	Pin 3	Pin 3
Frame Ground	Pin 6	Pin 6

RS-232C Communication

The RS-232C interface uses the following protocol and communication characteristics:

- Up to 19.2K Baud
- Up to 6K Buffer
- Ready/Busy or XON/XOFF Protocol
- Communications Diagnostic Mode



Serial Cable

Cable Requirements

The OKIPOS 80 Plus III Printer requires an RS-232C shielded cable, no more than 50 feet long.

Pin Assignments for 9-pin Printer Connector

Pin	Name	Description
Pin 1	DCD	Data Carrier Detect
Pin 2	RX	Receive Data
Pin 3	TX	Transmit Data
Pin 4	DTR	Data Terminal Ready
Pin 5	GND	Signal Ground
Pin 6	DSR	Data Set Ready
Pin 7	RTS	Request To Send
Pin 8	CTS	Clear To Send
Pin 9	SSD	Secondary Data

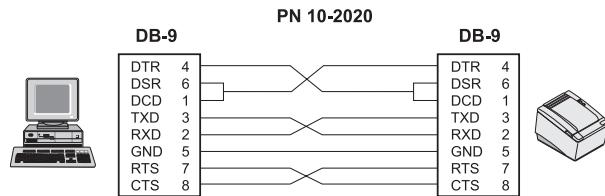




Serial Cable Configurations

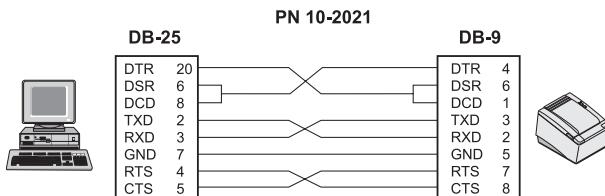
The following cable configurations are for different host requirements.

9-pin Serial Cable



Use this cable for OKIPOS 80 Plus III printers connected to PCs or PS/2s with 9-pin serial ports.

25-pin Serial Cable



Use this cable for OKIPOS 80 Plus III printers connected to PCs or PS/2s with 25-pin serial ports.

Parallel Cable

Cable Requirements

The OKIPOS 80 Plus III Printer requires a 25-pin male D-Shell connector at the printer. To connect the printer to most PC's use a 25-pin male to 25-pin male parallel interconnect cable.

Pin Assignments

Pin	Signal	Description	Direction
Pin 1	STROBE	Clock Data to printer	Host to Printer
Pin 2-9	D0 - D7	Data	Host to Printer
Pin 10	ACK\	Printer Accepted Data	Printer to Host
Pin 11	BUSY	Printer is Busy	Printer to Host
Pin 12	PE	Paper Out/ Status	Printer to Host
Pin 13	SLCT	Printer Selected	Printer to Host
Pin 14	AUTOFD	Auto feed paper	Host to Printer
Pin 15	ERR\	Printer Error	Printer to Host
Pin 16	INIT\	Initialize the Printer	Host to Printer
Pin 17	SLIN	Select Printer	Host to Printer
Pin 18-25	GND	Ground	



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